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CENTRAL INTELLIGENCE AGENCY
SECURITY INFORMATION

INFORMATION REPORT

REPORT NO. [redacted] 25X1

CD NO. 4/5

COUNTRY	USSR (Moscow -- Kuibyshev Oblasts)/Germany	DATE DISTR.	21 Mar 1952
SUBJECT	High Tension Equipment in the USSR; Plant [redacted] in Teply Stan	NO. OF PAGES	3
PLACE ACQUIRED	[redacted] 25X1	NO. OF ENCLS. (LISTED BELOW)	1
DATE OF INFO.	[redacted] 25X1	SUPPLEMENT TO REPORT NO.	

[redacted]

THIS IS UNEVALUATED INFORMATION

25X1

[redacted]

1. [redacted]

leading Soviet engineers of the Ministry of Electrical Industry [redacted] 25X1
25X1 [redacted] discussed the problem of the Kuibyshev (53°12'N/50°09'E) - Moscow power transmission line. The Soviet engineers [redacted] 25X1
25X1 [redacted] were well aware of the difficulties of this project.
25X1 [redacted] they were all of the opinion that this problem could not be solved by establishing various research institutes and by assigning commissions to develop a three-phase current transmission for 380 kv or a direct current transmission for 500 kv. There was no expert engineer who would have attempted to design the required high tension equipment. [redacted] 25X1
25X1 [redacted] Soviet plans for the Kuibyshev-Moscow power transmission line.

2. The high tension line will be built for 380 kv three-phase current and is scheduled to be a multicore line (Buendelleiter). The Hescho-Kahla (M 51/J 65) Ceramic Plant in Hermsdorf (M 51/J 86) will possibly be assigned to construct insulators. (1) 25X1

3. The required current and voltage transformers are scheduled to be developed for a voltage of 400 kv. The two German transformer plants, the Karl Liebknecht VEM Transformer Plant in Berlin-Oberschoeneweide (M 53/Z 75) (formerly the AEG Plant) and the VEM Transformer and X-ray Plant (formerly the Koch & Sterzel Plant) in Dresden, will probably be ordered to develop the transformers. Before 1945, two calibrating apparatuses (Eichnormale) were constructed in Germany for a voltage of 400 kv. One of these apparatuses was delivered to the Physikalisch-Technische Reichsanstalt (State Physical-Technical Institute), and the other one, which remained in the Koch & Sterzel plant, is now in the U.S.S.R. (2)

Document No. 3
No Change in Class. ☐
☐ Declassified
Class. Changed To: TS S C
Auth: 11-9-78

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4. The construction of 380 kv transformers is presently impossible in the U.S.S.R. Soviet engineers [redacted] 25X1 obviously did not wish to deal with this problem. They even found it difficult to handle the problems occurring in the construction of 220 kv transformers. The Soviet Zone of Germany is also unable to construct 380 kv transformers. [redacted] 25X1 of [redacted] 25X1 German experts employed in the construction of transformers were not able to solve this problem. Due to these difficulties, Soviet engineers considered purchasing 380 kv transformers abroad.

5. In 195[redacted] the new university quarter on the south-western outskirts of Moscow, [redacted] a large workshop building [redacted] 25X1 a modern extra-high tension installation. A Soviet engineer [redacted] confirmed that this installation was the only 5[redacted]mv direct current 25X1 extra-high tension installation built by the Koch & Sterzel plant in Dresden. (3) 25X1

6. The plant in **Teply** Stan producing X-ray instruments for medical purposes was subordinate to the Ministry of Electric Industry, Main Department for Electric Industry, Main Department for Electric Apparatuses, including Glavelektroapparat (sic).* [redacted] 25X1 [redacted] In 1945, the plant had been installed in the premises of a former textile factory and since then has been expanded. Substantial expansion work in 1952 was also scheduled. (4) 25X1

7. The plant produced the same X-ray equipment as the former Koch & Sterzel plant. In the beginning the equipment produced was of poor quality. However, in 1951, the quality of the equipment compared in every respect with the previous German production. The X-ray tubes were delivered by a Leningrad plant which employed a group of Germans who had been deported from the Phoenix Plant in Rudolstadt (J 51/J 54). The finished equipment was accepted by the Moscow X-ray institute. Instrument transformers and high tension test equipment of standard design were also produced. 25X1

8. About 1,000 workers were employed in 1951. About 15 people were employed in the technical designing office in 1947, and about 20, half of them women, in 1950. A special test department manufactured models of equipment designed by the technical designing office. The Soviet chief electrical engineer of the plant was Shadlov (fnu).

25X1 9. Power was supplied to Plant [redacted] by the transformer station in Kommunarka. The power supply to the suburbs of Moscow was poor during the entire period of observation. Only the city area of Moscow, in a radius of 22 km from the town center, was always sufficiently and reliably supplied. However, all factories located outside this zone were compelled because of load balancing to work only in two shifts and to suspend operation during one weekday designated by the power center. Electric power was available to the civilian population only from 5 p.m. to 8 a.m. and for one and a half hours during noontime. When electric power was shut off in the evening it usually remained off for the entire night. The voltage of the 220 V network varied between 120 and 280 V.

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[redacted]

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[redacted]

(3) A laboratory for nuclear physics which was attached to the Physical Science Institute was located in the southwest part of Moscow, on the Kaluzhskaya ul. in the Leninskiy town sector. It is possible that this laboratory is the installation referred to.
(4) For location sketch of this plant, see Annex.

25X1 [redacted] Comment: For "Main Department" read "Chief Directorate". Glavelektroapparat would not be "included" in the Chief Directorate for Electric Apparatus; it is the portmanteau title of that chief directorate.

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Annex [ ]

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Location Sketch of Plant [ ] in Tyeply Stan

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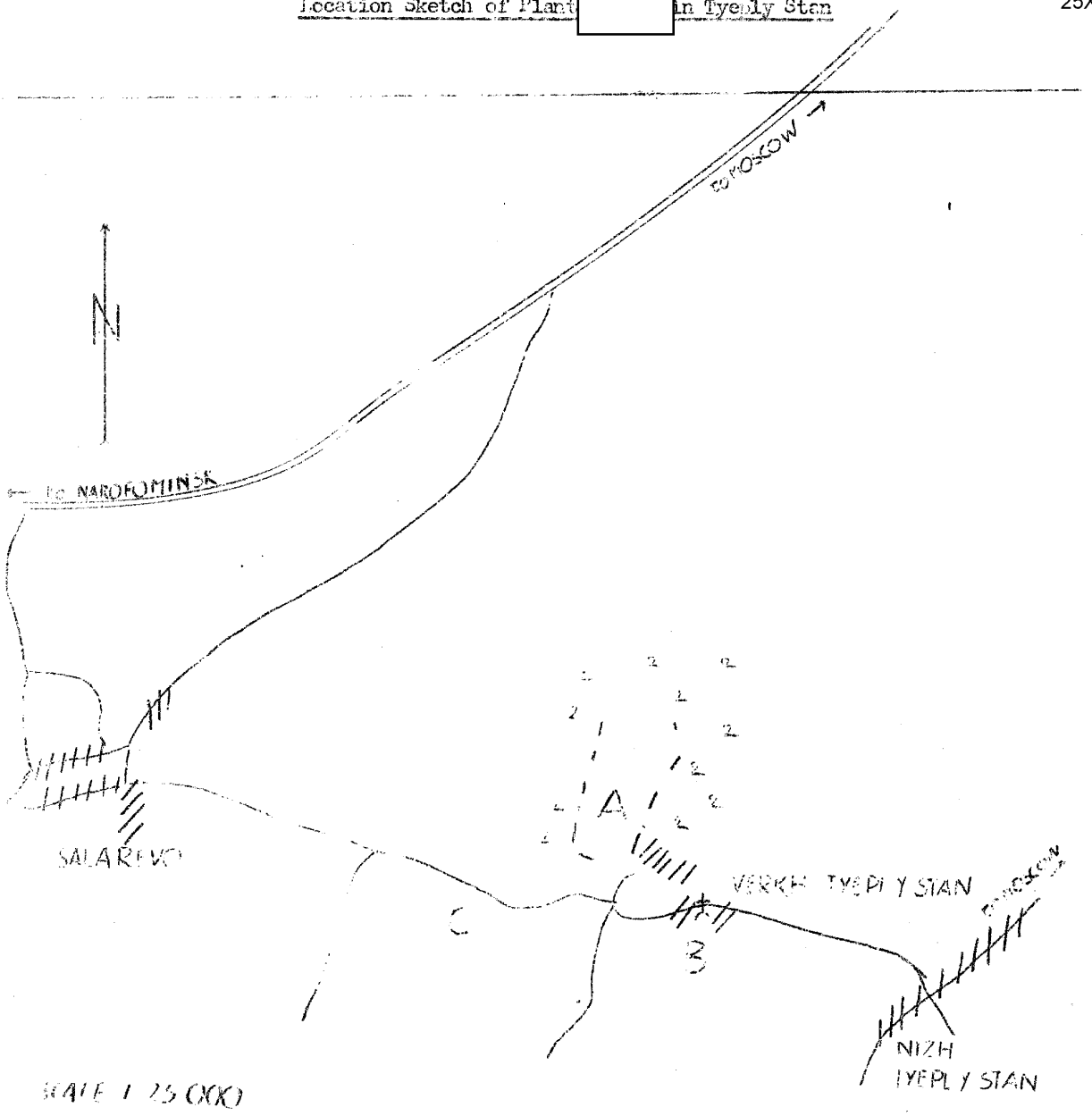

Legend:

25X1 A. Plant [ ] The plant is to be expanded to the north.

B. Church.

V. Airfield.

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